

AMENDMENTS TO THE CLAIMS:

1. (Withdrawn) A digital broadcast receiving apparatus configured to multiplex packets corresponding to necessary-packet identifiers (Hereinbelow, a "packet identifier" is referred to as a "PID".) in a first transport stream (Hereinbelow, a "transport stream" is referred to as a "TS".) with packets corresponding to necessary PIDs in a second TS.

2. (Currently amended) A digital broadcast receiving apparatus comprising a packet-overwriting device capable of overwriting unnecessary-packet areas corresponding to unnecessary packet identifiers (PIDs) in a first transport stream (TS) using packets corresponding to necessary PIDs in a second TS; and necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from a second one of said demodulator sections, where the first one of said demodulator sections is different from the second one of said demodulator sections; and packet-overwriting means for overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-packet detecting means, wherein a custom transfer stream output from said packet-overwriting means is output to at least one of said output destinations specified by said input section.

3. (Withdrawn) A digital broadcast receiving apparatus configured such that packets corresponding to necessary PIDs in a first TS are extracted, packets corresponding to necessary PIDs in a second TS are extracted, and insertion is performed so that said packets extracted from the first TS and the packets extracted from the second TS are mutually inserted.

4. (Previously presented) A digital broadcast receiving apparatus as defined in claim 2, wherein when packets to be multiplexed by the overwriting, the packets in at least one of the first and second TSs are rewritten to make the packets to be different from one another.

5. (Previously presented) A digital broadcast receiving apparatus as defined in claim 4, wherein PIDs of packets in the first TS where packets are rewritten through the overwriting are rewritten.

6. (Previously presented) A digital broadcast receiving apparatus as defined in claim 2, wherein NULL-packet areas are the unnecessary-packet areas corresponding to the unnecessary PIDs and are given priority.

7. (Currently amended) A digital broadcast receiving apparatus comprising:
unnecessary-packet detecting means for detecting unnecessary-packet areas corresponding to unnecessary packet identifiers (PIDs) in a first transport stream (TS) that is input; necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from a second one of said demodulator sections, where the first one of said demodulator sections is different from the second one of said demodulator sections; and packet-overwriting means for overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-packet detecting means in the first TS, wherein a custom transfer stream output from said packet-overwriting means is output to at least one of said output destinations specified by said input section.

8. (Withdrawn) A digital broadcast receiving apparatus comprising: first necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a first TS that is input; second necessary-packet extracting means for extracting packets corresponding to

necessary PIDs in a second TS that is input; and packet-inserting means for performing insertion of said packets on the two TS sides to be mutually inserted to thereby generate a new TS.

9. (Previously presented) A digital broadcast receiving apparatus as defined in claim 7, comprising: identical-PID determining means for determining whether identical PIDs exist in both the first and second TSs for the packets that are to be multiplexed with each other through said overwriting; and PID-converting means for performing rewriting of PIDs of packets in at least one of the first and second TSs so that the identical PIDs in the first and second TSs are differentiated for packets that are determined by said identical-PID determining means to have the identical PIDs.

10. (Withdrawn) A digital broadcast receiving apparatus as defined in claim 8, comprising: identical-PID determining means for performing determination whether identical PIDs exist on the two TS sides of the packets that are to be multiplexed with each other through said insertion; and PID-converting means for performing rewriting of PIDs of packets on at least one of the two TS sides so that opponent-side PIDs are differentiated therefrom for packets that are determined by said identical-PID determining means to have identical PIDs.

11. (Withdrawn) A digital broadcast receiving apparatus comprising: first necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a first TS that is input; second necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS that is input; PID-converting means for rewriting PIDs of all packets extracted on said two TS sides so as to be identical from one another; and packet-inserting means for performing insertion of said PID-rewritten packets on the two TS sides to be mutually inserted to thereby generate a new TS.

12. (Withdrawn) A digital broadcast receiving apparatus as defined in claim 11, wherein said PID-converting means memorizes a start PID number that is used for the subsequent multiplexing processing, and updates said start PID number every time the multiplexing processing is executed.

13. (Original) A digital broadcast receiving apparatus as defined in claim 9, wherein the PID-converting means is configured to convert said PIDs so as to be opened to a user.

14. (Previously presented) A digital broadcast receiving apparatus as defined in claim 7, comprising: NULL-packet counting means for counting NULL packets coming from said first TS; packet counting means for counting post-extraction NULL packets in the second TS comparing means for comparing a NULL-packet count value output by said NULL-packet counting means with a packet count value output by said packet counting means; and NULL-packet-priority specifying means for specifying NULL-packet areas with priority as unnecessary-packet areas corresponding to said unnecessary PIDs when said NULL packet count value is equal to or greater than the packet count value.

15. (Previously presented) A digital broadcast receiving apparatus as defined in claim 7, wherein said packet-overwriting device is capable of giving NULL-packet areas priority as overwrite objects, when a detection frequency of NULL packets in the first TS is high and performing overwriting to other unnecessary-packet areas when overwriting of said extracted packets to NULL packets is suspended, and the number of packets held pending for the overwriting reaches a predetermined value.

16. (Previously presented) A digital broadcast receiving apparatus as defined claim 2, wherein a plurality of TSs including packets to be multiplexed through the overwriting are

input as objects, the plurality of TSs being selectable from (a) a TS including viewing-desired broadcast program data, (b) a TS including broadcast-program-table related data, (c) a TS including downloadable data, (d) a TS including image-recording-desired broadcast program data, and (e) TSs including other broadcast program data; and packets in the plurality of selected TSs are multiplexed.

17. (Previously presented) A digital broadcast receiving apparatus comprising: tuners for receiving modulated waves of digital broadcast waves; a plurality of groups of demodulator sections for demodulating signals output from said tuners to thereby output transport streams (TSs); an input section for selecting a plurality of desired TSs and for specifying output destinations; unnecessary-packet detecting means for detecting unnecessary-packet areas corresponding to unnecessary packet identifiers (PIDs) in a first TS input from a first one of said demodulator sections; necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from a second one of said demodulator sections, where the first one of said demodulator sections is different from the second one of said demodulator sections; and packet-overwriting means for overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-packet detecting means, wherein a custom transfer stream output from said packet-overwriting means is output to at least one of said output destinations specified by said input section.

18. (Withdrawn) A digital broadcast receiving apparatus comprising: tuners for receiving modulated waves of digital broadcast waves; a plurality of groups of demodulator sections for demodulating signals output from said tuners to thereby output TSs; an input section for selecting a plurality of desired TSs to thereby specifying output destinations; first necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a first TS

input from one of said demodulator sections; second necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from one of said demodulator sections, which is different from said one of said demodulator sections; and packet-inserting means for performing insertion of said extracted packets on the two sides so as to be mutually inserted to thereby generate a new TS, wherein a CTS output from said packet-inserting means is output to said output destination specified by said input section.

19. (Previously presented) A digital broadcast receiving apparatus according to claim 16, wherein the apparatus is one of (a) an image-playback apparatus, (b) an audio-recording apparatus, and (c) a digital-image recording apparatus.

20. (Currently amended) A digital-broadcast receiving method comprising the steps of: registering necessary packet identifiers (PIDs) regarding a first transport stream (TS) that is input; registering necessary PIDs regarding a second TS that is input; detecting unnecessary PIDs in said first TS extracting packets corresponding to said registered necessary PIDs regarding the second TS from the second TS; [[and]] overwriting packets extracted from said second TS to unnecessary-packet areas corresponding to said unnecessary PIDs in said first TS; necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from a second one of said demodulator sections, where the first one of said demodulator sections is different from the second one of said demodulator sections; and packet-overwriting means for overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-packet detecting means, wherein a custom transfer stream output from said packet-overwriting means is output to at least one of said output destinations specified by said input section.

21. (Currently amended) A computer-readable recording medium containing a digital-broadcast-receiving software program, which, when read by the computer, causes the computer to execute the steps of: registering necessary packet identifiers (PIDs) regarding a first transport stream (TS) that is input; registering necessary PIDs regarding a second TS that is input; detecting unnecessary PIDs in said first TS extracting packets corresponding to said registered necessary PIDs regarding the second TS from the input second TS; [[and]] overwriting packets extracted from said second TS to the unnecessary-packet areas corresponding to the unnecessary PIDs detected in said first TS; necessary-packet extracting means for extracting packets corresponding to necessary PIDs in a second TS input from a second one of said demodulator sections, where the first one of said demodulator sections is different from the second one of said demodulator sections; and packet-overwriting means for overwriting packets extracted by said necessary-packet extracting means to said unnecessary-packet areas detected by said unnecessary-packet detecting means, wherein a custom transfer stream output from said packet-overwriting means is output to at least one of said output destinations specified by said input section.